

## **§ 77.510**

6 feet high and at least 3 feet from any energized parts, casings, or wiring.

(b) Transformer stations shall be enclosed to prevent persons from unintentionally or inadvertently contacting energized parts.

(c) Transformer enclosures shall be kept locked against unauthorized entry.

## **§ 77.510 Resistors; location and guarding.**

Resistors, heaters, and rheostats shall be located so as to minimize fire hazards and, where necessary, provided with guards to prevent personal contact.

## **§ 77.511 Danger signs at electrical installations.**

Suitable danger signs shall be posted at all major electrical installations.

## **§ 77.512 Inspection and cover plates.**

Inspection and cover plates on electrical equipment shall be kept in place at all times except during testing or repairs.

## **§ 77.513 Insulating mats at power switches.**

Dry wooden platforms, insulating mats, or other electrically nonconductive material shall be kept in place at all switchboards and power-control switches where shock hazards exist. However, metal plates on which a person normally would stand and which are kept at the same potential as the grounded, metal, non-current-carrying parts of the power switches to be operated may be used.

## **§ 77.514 Switchboards; passageways and clearance.**

Switchboards shall be installed to provide passageways or lanes of travel which permit access to the back of the switchboard from both ends for inspection, adjustment or repair. Openings permitting access to the rear of any switchboard shall be guarded, except where they are located in buildings which are kept locked.

## **30 CFR Ch. I (7-1-01 Edition)**

## **§ 77.515 Bare signal or control wires; voltage.**

The voltage on bare signal or control wires accessible to personal contact shall not exceed 40 volts.

## **§ 77.516 Electric wiring and equipment; installation and maintenance.**

In addition to the requirements of §§ 77.503 and 77.506, all wiring and electrical equipment installed after June 30, 1971, shall meet the requirements of the National Electric Code in effect at the time of installation.

## **Subpart G—Trailing Cables**

## **§ 77.600 Trailing cables; short-circuit protection; disconnecting devices.**

Short-circuit protection for trailing cables shall be provided by an automatic circuit breaker or other no less effective device, approved by the Secretary, of adequate current-interrupting capacity in each ungrounded conductor. Disconnecting devices used to disconnect power from trailing cables shall be plainly marked and identified and such devices shall be equipped or designed in such a manner that it can be determined by visual observation that the power is disconnected.

## **§ 77.601 Trailing cables or portable cables; temporary splices.**

Temporary splices in trailing cables or portable cables shall be made in a workmanlike manner and shall be mechanically strong and well insulated. Trailing cables or portable cables with exposed wires or splices that heat or spark under load shall not be used.

## **§ 77.602 Permanent splicing of trailing cables.**

When permanent splices in trailing cables are made, they shall be:

- (a) Mechanically strong with adequate electrical conductivity;
- (b) Effectively insulated and sealed so as to exclude moisture; and,
- (c) Vulcanized or otherwise made with suitable materials to provide good bonding to the outer jacket.